

1859.

BOROUGH OF CARDIFF.

THE

SIXTH ANNUAL REPORT

ON

SANITARY CONDITION OF CARDIFF.

[for the year 1858]

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OFFICER OF HEALTH.

PRINTED BY ORDER OF THE LOCAL BOARD OF HEALTH.

CARDIFF:

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SANITARY CONDITION OF CARDIFF.

TO THE CARDIFF LOCAL BOARD OF HEALTH.

GENTLEMEN,

Cardiff, February, 1859.

IN the Report which I have the honour this day to bring before your notice, I am enabled to state that the sanitary condition of the town has been satisfactory. This is evidenced not merely by a considerable decrease in the total deaths registered during 1858, as compared with the previous years, but also by other and interesting circumstances to which I shall have to allude.

IN defining the estimate of population as a basis on which to calculate the rate of mortality, a peculiar feature, as a departure from the later history of Cardiff, presents itself, namely, that the local growth of its population has received a temporary check; that the residents here during 1858 were numerically less than in 1857. My attention was first called to the possibility of this, by observing an evident decrease in the number of inmates in the houses of the districts usually occupied by the labouring classes. The Inspector of Lodging Houses has also reported this to me. This decrease has arisen from the development of house accommodation in the neighbouring parishes and hamlets, as Roath and Canton, while a similar cause operating at Penarth has occasioned the navigators and their families now engaged at the works in that locality to leave this town, for the convenience of residing near their labour. Another cause has been the depression in the commercial interests of the Port, and the consequent failure of employment for those connected with the Coal, Iron, and Shipping interests, many of whom have also left.

The births registered in Cardiff during the years 1857 and 1858, were :—

	1857.	1858.
For the Winter Quarter ending March, ..	353	346
Spring " June ..	327	337
Summer " Sept. ..	333	350
Autumn " Dec. ..	363	323
	1376	1356

The deaths during the same years were, in 1857, 883; in 1858, 744, thus showing a decrease on the last year of 139 deaths, the relative births and deaths being :—

Year.	Births.	Deaths.	Excess of Births over Deaths.	Proportional number of Deaths to every 100 Births.
1857	1376	883	493	64
1858	1356	744	612	54

The important bearing of this illustration will be more fully exemplified in a table to which I shall have presently to direct your attention.

But I may now contrast the present favourable position of Cardiff with neighbouring districts, as borne out by the relative births and deaths in the following localities, according to the last Quarterly Return of Registrar General.

TABLE I.

Showing relative degree of Births to Deaths during Quarter ending Dec. 25, 1858.

PLACE.	Births in Qr. ending Dec. 25, 1858.	Deaths during same period.	REMARKS.
Cardiff	323	188	Excess of <i>births</i> over deaths .. 135
Merthyr	248	239	Excess of <i>births</i> over deaths .. 9
Swansea	263	308	Excess of <i>deaths</i> over births .. 45
Newport ...	226	295	Excess of <i>deaths</i> over births .. 69

Thus, in Cardiff there has been the large excess of 135 *births* over deaths; in Merthyr the slight excess of 9 *only*; but in Swansea the *deaths* exceeded the births by 45; and in Newport the *deaths* exceeded the births by 69.

Assuming the births in this town to be at the rate of 4 per cent. on the population, they would give as a result 33,900 as the ordinary inhabitants of Cardiff in 1858; the number of seamen constantly in the Port would bring the estimate to something above 37,000, the estimate in 1857 being 38,000.

I have estimated a lesser number of seamen for the year 1858, in consequence of a decrease in the tonnage entering the Port; this return I have obtained through the readiness of Mr. Peake, Collector of H.M. Customs at Cardiff.

In 1854, the Registered Tonnage entering the Port was	964,066
" 1855, " " " " "	1,024,902
" 1856, " " " " "	1,138,105
" 1857, " " " " "	1,267,289
" 1858, " " " " "	1,138,609

The population being estimated at 37,000, and the registered deaths from all causes being 744, the death rate has been 20·10 per thousand; we have now to consider this rate in comparison with other districts, in order to determine the sanitary condition of the town.

According to the last return of the Registrar General,

	The rate of Mortality per thousand has been in	
	1857.	1858.
In 125 districts and 23 sub-districts, comprising } the chief towns of England and Wales }	25·29.	25.
In the remaining districts and sub-districts, com- } prising chiefly small towns and country parishes }	18·75.	21.
In Cardiff	23·23.	20·10

The average death rate of sixty-four of the 628 registration districts, comprising the most healthy ranges, is from 15 to 17 per thousand. The remainder vary from 17 up to 36, the average death rate of all England being 23 per thousand for the year 1858.

The average death rate of towns being 25 per thousand, the death rate of Cardiff during the past year has been 5 per thousand less than the average town mortality, and 3 less than the mortality of all England; in other words 185 persons are now living who would have been dead had the mortality of Cardiff been equal to the average of town mortality, and 111 had it reached the average mortality of all England.

I will now direct your attention to the sanitary progress of the town since 1848.

According to the report of Mr. Rammell, made to the General Board of Health in that year, when he instituted an enquiry into the sanitary condition of Cardiff, he gives us a statement of the total births and deaths for seven successive years.

TABLE II.

Total Births for seven years ending 1848.	Total Deaths for same period.	Excess of Deaths over Births.	Annual average Mortality on seven years.	Estimated average population on seven years.	Proportionate rate of mortality to every 1000 inhabitants.
2,432	2,532	100	362	12,000	30

In table 2 I have made an analysis of births and deaths for the nine years preceding 1849, the year of the cholera epidemic.

By this table it will be seen that the sanitary condition of Cardiff up to the year 1848 was in such an unsatisfactory state, that according to Mr. Rammell, on an average of seven years the deaths exceeded the births by 100, and the death rate was 30 per thousand on the population. In 1849 the deaths, in consequence of cholera, rose to 50 per thousand. In 1850, the provisions of the Health of Towns Act were applied to the Town, surface nuisances were removed, cleansing of houses enforced, and lodging-houses placed under supervision; afterwards a good water supply was obtained; and in 1854, the new system of drainage commenced, and to a great extent is now completed. In 1850, the births exceeded deaths by 9. This yearly increased until the excess has reached 612: nearly two births are now registered to every death, while the death rate has fallen from 30.95 to 20.10 per thousand. These remarks can be followed out by the subjoined table.

TABLE III.

Year.	Total Births.	Total Deaths.	Excess of Births over Deaths.	Classification of Deaths.			Remarks.	Average per centage of deaths from Zymotic to total deaths	Estimated Population.	Proportionate rate of mortality every 1000 inhabitants.
				Deaths from Sporadic Causes.	Deaths from Zymotic Causes.	Per centage of deaths from Zymot. to total dths.				
1850	504	495	9	345	117	23.63	Census year.	27	16,000	30.95
1851	575	525	50	378	102	19.42..			18,351	28.06
1852	696	642	54	407	205	31.93			21,500	29.56
1853	865	644	221	445	139	21.58			24,000	35.83
1854	950	925	25	507	358	38.70..	{ Epidemic Cholera.	18	26,500	34.90
1855	1079	641	438	512	71	11.07			29,500	21.72
1856	1227	772	465	557	140	18.13	{ Epidemic Small Pox.		34,923	22.10
1857	1367	833	484	583	234	26.50..			38,000	23.23
1858	1356	744	612	616	128	20.90			37,000	20.10

We have now to consider the various exciting causes of death during the year. The following table shows the mortality for six successive years:—

On an analysis of table 4, illustrating the cause of death in the 744 instances, there will be found a decrease in the first group, or those dependent on disease of brain and nervous system. This is owing to fewer deaths being registered this year from convulsions; but even with this diminution, there is a slight excess as compared with the average death rate from convulsions throughout the kingdom, that being 164 to every 100,000: in Cardiff, the proportionate rate is equal to 191 in the 100,000. The other causes of death from cerebral and spinal disease are about the average.

Deaths from diseases of respiratory organs maintain the ordinary average of previous years in Cardiff; as compared with the mortality of England and Wales, they are as 572 to 552. Phthisis is however less, being as 218 to 282. The excess of mortality in 1858 from pulmonary affections has been owing to acute inflammatory diseases of chest, and may be accounted for by the cold dry winds in the early part of the year, with the great prevalence of whooping-cough. Many of the deaths registered as from inflammation of lungs were probably the sequelæ of that epidemic, as they occurred among young children.

Among the deaths from diseases of the various regional cavities, the chief return has been under the head of inflammatory affections of the bowels, but the increase is not sufficient to require observation.

The next group, or deaths from zymotic or epidemic causes, more especially calls for your observation, as it is now fully established that the neglect of sanitary precaution most seriously aggravates, and in many instances excites, the various diseases occasioning death under this head; and that the large mortality from these causes is to a considerable extent preventible. The greatly-improved sanitary condition of Cardiff, as exhibited by the progressive diminishing mortality from zymotic disease, is especially satisfactory. But few years back districts and localities existed in Cardiff where fever was never absent; in one year, 1847-48, 89 deaths from fever alone were registered out of a mortality of 518. Stanley-street contributed 10 fever deaths; Landore-court, 9; and Waterloo-buildings, 8, the population at this time little exceeding 14,000. To have visited these and similar localities at that period would have been to have recognized there filth of the worst descrip-

tion, which, in the earlier connection I had with your Board, I detailed at your meetings again and again: refuse matter and stagnant fetid water externally surrounded buildings, the interior rooms of which were filled with a poisoned atmosphere loaded with the breath and perspiration which exhaled from the surface of inmates who were crowded together in almost inconceivable numbers: these exhalations ran down the walls condensed in large drops. The only supply of water was obtained from wells that were contaminated with the pollutions from cesspools, which passed freely into them owing to the porosity of the soil, many of these cesspools being under the same roof, and oftentimes in the cellar. To those who might have visited them, as it has fallen to me to do, in the night, when every aperture for the admission of air has been closed, it would have excited no wonder that fever alone should have produced 89 deaths in a population of 14,000, or that, when these excitants of zymotic disease should have been removed, in a population of 37,000, the deaths from fever should have fallen to 19.

The following is the decrease in the mortality from fever for six years:—

TABLE V.

Mortality from Fevers registered in Cardiff in					
1853.	1854.	1855.	1856.	1857.	1858.
38	18	10	15	20	19

From this table it is found that 38 deaths from fever were registered in the year 1853: for the last five years the annual average mortality from this cause has been 15, or less than one third. In 1854, the water supply was first afforded the public, and there can be no doubt materially assisted, as it has been found in other towns, to reduce the mortality from zymotic diseases, especially fever.

The average mortality from fevers in England and Wales is 1 per 1000; in Cardiff during the last five years it averages only half that mortality, being 1 to every 2000.

The deaths from fever during the year occurred in the following localities:—

TABLE VI.

Month.	No. of Case.	Sex.	Age.	Locality.	Occupation.
January ..	1	M	66	North-street	Coalheaver
February ..	2	F	7	"	Labourer's child
" ..	3	M	15	George-street	Seaman
April	4	M	8	David-street	Charwoman's child
June	5	M	22	The Union	Labourer
July	6	F	1	Peel-street	Carpenter's child
"	7	F	2	Thomas-street	Coalheaver
August	8	M	33	Louisa-street	Seaman
"	9	M	27	Tabernacle-court ..	Writing clerk
November..	10	M	1	Thomas-street	Navigator's child
" ..	11	M	3	Sophia-street	Seaman's child
December..	12	F	17	Taff-street	Domestic servant
" ..	13	F	9	Millicent-street ..	Brewer
" ..	14	M	18	Louisa-street	Seaman
" ..	15	M	24	Davis-street	Huxter
" ..	16	M	66	West Bute-street..	Hotel-keeper
" ..	17	M	35	The Union	Labourer
" ..	18	M	9	Margaret-street ..	Basket-maker's child
" ..	19	M	33	Maryann-street ..	Carpenter

It will be seen that the greater number of deaths took place during the later six months of the year, and that of these 8 occurred in December.

In this year, two deaths from fevers are registered in Thomas-street, Newtown. No case of fever had previously been registered in that or the adjoining streets for four years, although they consisted of houses chiefly occupied as Irish lodging-houses, giving house accommodation to upwards of 2000 persons. The same absence of mortality from fever applies to Stanley-street and Landore-court, similar localities, these houses being under constant and rigid supervision.

The same decrease of mortality from diarrhoea and dysentery is observed. In 1848—(I quote this year, it being the last previous to the visit of Mr. Rammell)—the deaths from these diseases were 59, in a population of 14,000; this year, in a population of 37,000, they have been only 16. The difference in mortality from these diseases is hardly expected to be as great as in fever; as of the 16, 14 occurred under five years of age, and are probably to be referred to intestinal irritation from teething, and therefore not amenable to sanitary laws.

Diphtherite was fatal in five cases, and confined entirely to children.

TABLE VII.

Month.	No. of Case.	Sex.	Age.	Locality.	Occupation.
May	1	M	15 mnts	Maindy ..	Railway breaksman's child
"	2	M	9 years	Maria-st.	Shipwright's child
June	3	F	1 year	Peel-st ...	Carpenter's child
October ..	4	F	2 years	Davies-st	Carpenter's child
December..	5	F	10 mnts	Bridge-st	Wharf labourer's child

It is satisfactory to note that diptherite has not spread with the same severity as in other and neighbouring towns, and that hitherto only one death has been occasioned by it in any family suffering from this disease.

Small-pox, which had prevailed in Cardiff throughout the whole of 1857, continued at intervals until May of this year, when it entirely ceased, as since that month no death from this disease has been registered.

My Lords of the Privy Council have called the attention of the Board of Guardians of the various Unions throughout the kingdom to the apparent carelessness evinced by the public in availing themselves of the protective powers of vaccination. A letter read recently at our Board states, that while 2,798 births have been registered in Cardiff, only 1,183 cases of successful vaccination, or less than half the number of births, are recorded, and asking for an explanation. In the discharge of my duty as your Officer of Health, I have repeatedly inquired into the extent of non-vaccination among children in this town, and my experience convinces me that during the last twelve months vaccination among the poorer classes has been conducted with tolerable activity, but that the number of recorded cases bears no proportion to the number of children actually vaccinated. I attribute this circumstance to the fact that parents, after having the child vaccinated, are directed to reappear at the station, or medical man's house, on a certain day, to have the child examined as to the perfect success of vaccination; the parent frequently labours under the impression that if this were done, matter would be taken from the arm, against which a prejudice exists; the medical man does not again see the child, and is unable to report to the Registrar the result; thus, although the child has been in many instances successfully vaccinated

no record of the fact is obtained. But even with all the present precautions and powers of the Vaccination Act, doubtless many children are not vaccinated, especially after the terrors of a visitation of small-pox have subsided. This arises chiefly from there being no person to whom the duty has been assigned to enforce vaccination, or, in the event of noncompliance, to summon the offending parties before the authorities, and obtain a conviction. Were this done in a few instances, there can be little doubt but that vaccination would soon be universal in a district, and that the mortality from small-pox would be very insignificant. The great advantages resulting from the protective influence of vaccination during the epidemic of last year in this town were very marked, and were detailed in the report which I then laid before you.

I would suggest that Sergeant Hibbs, your Inspector of Lodging Houses, should, on making his daily visits, at intervals require the exhibition of the certificate of successful vaccination. This is always given by the vaccinator on inspection, and is required to be kept by the parent as evidence to the party requiring its exhibition. Failing to obtain this, or other satisfactory evidence of successful vaccination, which he might ascertain by sending the child to the Officer of Health or to the family medical man, he should obtain a summons against the parent to enforce the penalty.

Sporadic diseases of uncertain seat maintain only their average rate.

The deaths from causes unknown are registered without medical certificate, and the observation in addition is made "Without medical attendant." A large proportion of these deaths comprise illegitimate children, and usually occur soon after birth. It is to be considered whether inquiry in such instances should be made, so as to prevent unfair death: the frequency of bodies of newly born infants being found deposited in improper places increases the necessity of such precaution.

The deaths took place at the following ages. Table 8 gives the mortality at age during 1857 and 1858, distinguishing also the sexes :—

TABLE VIII.

AGE.	1857.			1858.		
	Males.	Females.	Total.	Males.	Females.	Total.
Under 1 year	128	134	262	126	100	226
1 and under 2	43	30	73	47	45	92
2 " 3	22	30	52	12	16	28
3 " 4	21	17	38	10	9	19
4 " 5	15	13	28	10	11	21
5 " 10	22	15	37	19	12	31
10 " 15	5	3	8	1	7	8
15 " 25	39	23	62	25	28	53
25 " 35	38	30	68	28	30	58
35 " 45	31	34	65	25	19	44
45 " 55	25	9	34	21	20	41
55 " 65	14	17	31	14	11	25
65 " 75	16	19	35	17	9	26
75 " 85	5	11	16	9	9	18
85 " 95	5	3	8	1	3	4
95 and upwards	0	0	0	0	3	3
	429	388	817	357	330	687
Inquests			75			58
			882			745

Dr. Simon, the medical officer to the General Board of Health, says in his very valuable introduction to Dr. Greenhow's admirable report :—

"The death rates of young children are, in my opinion, among the most important studies in sanitary science. In the first place, their tender young lives, as compared with the more hardened and acclimatised lives of the adult population, furnish a very sensitive test of sanitary circumstances; so that differences of infantine death rate are, under certain qualifications, the best proof of differences of household condition in any number of compared districts. And, secondly, those places where infants are most apt to die, are necessarily the places where survivors are most apt to be sickly; and where, if they struggle through a scrofulous childhood to realise an abortive puberty, they beget a sicklier brood than themselves, even less capable of labour, and even less susceptible of high education. It cannot be too distinctly recognised that a high local mortality of children must almost necessarily denote a high local prevalence of those causes which determine a degeneration of race."

The most unfavourable sanitary aspect under which the town of Cardiff can be viewed, is its present infant mortality. The per centage of infant mortality to total deaths throughout the kingdom is 42. In Cardiff it reaches as high as 51. This

excess however, rules the same in all localities where a large mass of population embraces a disproportionate number of the working classes. I would instance the following :—

The Metropolis	42·7.
Liverpool.....	54·5.
Birmingham	49·4.
Glasgow	54.
Cardiff	51.

This excess is due to the circumstances of the parent not admitting of that care so essential to the preservation of infant life. In Cardiff this is doubtless a chief cause. The Irish labourer resident in this town is of the lowest class, careless as to cleanliness, and improvident in the expenditure of his earnings; the food of the parent is not of that kind likely to produce natural strength of constitution, or to generate a nutritious secretion for the offspring, which is born sickly, soon evinces unmistakeable evidences of a cacechitic temperament, and swells the register of deaths from atrophy, debility from birth, and mesenteric disease. These causes, as a Sanitary Board, you can never hope to remedy; but there is one cause, and not a trifling one, over which you have control—the condition of the dwellings of your poor. It has been to improve these I have opposed the issuing of licenses to the houses of Stanley-street, Landore-court, Kenton-court, and similar localities. I have directed the Inspector of Lodging Houses, Serjeant Hibbs, to warn the occupiers of houses in similar localities to abstain from taking in lodgers. One street especially calls for this intervention—Tindal-street. Each house is divided as it were into two dwellings, each division being occupied by lodgers; and while alluding to *this evil* of overcrowding, I may instance *another result*, one not, it is true, connected with the mortality, but with the health of those exposed to it;—I mean the frequency of strumous ophthalmy. From the experience I have had, now a lengthened one, of the extent of sickness as affecting the labouring classes, I have no doubt the prevalence of this disease among the Irish in Cardiff is attributable to it. The cases of strumous ophthalmy are now found, not in the localities where it formerly was seen, (these being under proper regulations,) but in the streets I have just enumerated. The unwholesome irritating condition of the atmosphere of the rooms in the first instance excites the disease, and then pre-

cludes any possibility of benefit from the employment of remedial measures. The reduction of lodgers can now be insisted on with more firmness, owing to the increase of house accommodation in the adjacent districts.

I would therefore submit, that no houses with the marked absence of convenience for such purposes, as in the streets and localities I have described, should be permitted to take in lodgers, only to excite disease and death among themselves, and assisting at times in spreading these among their more careful neighbours.

The number of deaths which have called for the investigation of the Coroner during the year are less than the two preceding years, being in 1856, 75; in 1857, 66; in 1858, 58. The verdicts returned on the Coroner's inquisitions have been as under:—

TABLE IX.

INQUESTS.

VERDICTS.	0	1 year.	2 years.	3 years.	4 years.	5 years.	10 years.	15 years.	25 years.	35 years.	45 years.	55 years.	65 years.	75 years.	85 years.	95 years.	TOTAL.
Injuries	-	-	-	-	-	-	1	4	3	1	3	1	1	-	-	-	14
Burnt	-	-	1	2	-	-	-	1	-	-	-	-	-	-	-	-	4
Suicide	-	-	-	-	-	-	-	-	1	-	1	-	-	-	-	-	2
Found dead	-	-	-	-	-	-	-	-	-	1	-	1	-	-	-	-	2
Natural causes	6	-	-	-	-	-	-	1	2	1	1	-	1	1	-	-	13
Accidentally drowned ..	-	-	-	-	-	2	1	1	1	-	-	2	-	-	-	-	7
Found drowned	-	-	-	-	-	-	-	5	4	3	-	-	-	-	-	-	12
From drinking	-	-	-	-	-	-	-	-	1	-	2	-	-	-	-	-	3
Murder	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1
																	58

Of the 58 inquests, 49 were males, and 7 females. The 14 deaths from injuries were chiefly received while engaged at labour, as in railway works, building, and shipping. The 19 deaths from drowning are unsatisfactory, inasmuch as in 12 instances the verdict was, "Found drowned," thereby conveying no information under what circumstances the deaths took place: these were individuals in the prime of life. It is for you to consider whether some means can be adopted for the preservation of life from drowning. The murder was that of a child who had been deserted by its mother, and exposed

during night in a farm yard at St. Mellons: it was brought into this Union and died. The mother was tried at Monmouth Assizes, and convicted of manslaughter.

TABLE X.

The number of deaths registered in each district during 1857 and 1858, were as follows:—		
DISTRICTS.	1857.	1858.
North District	94	68
South	239	206
East	152	130
West	111	85
Newtown	144	119
PUBLIC INSTITUTIONS—		
Infirmary	6	7
Union	70	69
Unknown	1	2
	<hr/>	<hr/>
	817	686
Inquests	66	58
	<hr/>	<hr/>
	883	744

Among the various sanitary measures which have been carried out during this year, or are now in course of adoption under your Board, the most important has been the extension of your original scheme for drainage, so as to embrace the portions of the town not included in Mr. Hawkeshaw's plan.

Another has been, the pitching and paving a large number of streets, especially in the Bute Dock district. The immense importance of this measure can be appreciated by anyone who had visited these streets in their former lamentable condition, when the almost impassable roads teemed with accumulations of every description of decomposing animal and vegetable matter; when large pools of stagnant filthy water emitted a malaria which now generated endemic, and then spread epidemic disease; and who can now contrast them with

their present clean and healthy aspect. This improved condition of streets it would be well to carry out in the northern portion of the Newtown district, as in Pellet-street and Noah-street, these being in a very bad state, as is also the court leading from Duffryn-street to Garth-street ; these streets, with Morgan-street and Godfrey-street, especially the latter, require amendment. On one occasion during the autumn there appeared a strong disposition for the prevalence of fever in Godfrey-street ; I attributed it at that time to the offensive state of the roadway, and called your attention to this assumed fact. Another locality is in a very serious state,—I mean the narrow lane or roadway between the northern side of Little Frederick-street and the back of Wellington and Nelson-terraces. This lane is full of muck and manure, and should be improved with as little delay as possible. I allude to this more strongly, inasmuch as diphtherite, which for some time has prevailed through the country, has in several instances been considered to have been excited in some localities by the malarious exhalations arising from the collection of refuse matter in manure heaps. Fortunately this town has hitherto been but little affected by this formidable disease, but it is very desirable that no means should be omitted to remove anything which might possibly excite its prevalence.

I can strongly report in commendation of the manner in which the lodging-houses have been regulated, as regards cleanliness and other essentials, by the Inspector, Police Sergeant Hibbs. A considerable reduction has taken place in the number of inmates, the houses have been at intervals lime-washed, and I can testify from observation that ventilation is much more carefully attended to, as the windows of the sleeping apartment are allowed to be open during the day. I have repeatedly checked the accuracy of the reports he has furnished me continually with ; and that the comparative comfort which now pervades the common lodging-houses of this town is due to his careful supervision is established by the fact that upon the slightest interruption, as when it is necessary for him to discharge other duties, these houses quickly revert to their former sad condition. I have this week personally visited upwards of 300 houses, and in very few instances had reason to be dissatisfied with their appearance. I believe this supervision has effected much moral and sound reform, independent of its sanitary advantages.

Sergeant Hibbs reports to me that he has made during the year 15,597 day visits, 7,600 night visits, that 130 nuisances have been removed, that he has caused 139 dirty houses to be cleansed and lime-washed, and that 120 notices have been served to reduce the number of inmates; he finds that so readily are the directions in this respect followed, that he has had occasion only to apply for four summonses. I can, from experience, affirm that a cheerful acquiescence has for some time been evinced by the keepers of the lodging-houses in all suggestions which I personally make, and that I rarely have to remonstrate with them for disobedience of directions.

While dwelling on the condition of the lodging-houses, I would suggest that considerable improvement might be effected in the dwellings of the poor, if in some localities, as in John-street, an evil were remedied which I feel is productive of deleterious influence on the health of those inhabiting them,—I allude to the circumstance that when the basement floors are composed of either pavement or bricks, especially the former, I have repeatedly observed it broken into small fragments, and the channelling between these retains all the objectionable part of the washing of the room. I have complained on many occasions to the occupiers of an unpleasant smell prevailing the room from this source. It would be very desirable if in houses of this description the floors should be composed of asphalte; it has been strongly recommended by a gentleman who has witnessed the great advantage resulting from it.

I would also direct your attention to the state of the back-lets of the houses on the eastern side of Maryann-street; they are mostly pitched with small pebbles, but the channelling between these, when visited last by me, was in a most grievous state, retaining offensive matter of every description, as in some of the yards animals, such as cows and donkeys, were kept; the soakings from the stables or manure heaps spread over the areas, while in all fowls were observed. These made the yards very dirty; and from the experience I have had under these circumstances, dirt and filth allowed to exist around dwellings materially excites a corresponding neglect of cleanliness internally.

The back-yards in Stanley-street are in the same objectionable condition as regards the pitching. The same remarks apply to the houses on the lower portion of the eastern side of

David-street, and the houses, with few exceptions, in Love-lane. I also discovered this in some instances in the back-yards behind the houses in the Newtown district, and also in Evelyn-street, Bute Town. I would strongly recommend that these open areas should be covered with asphalte. I can with confidence refer you to the improvement likely to result from such a measure by the success of its application at the Refuge behind our Union. Its cost is very inexpensive, being about a shilling per square yard, and is, I understand, very durable. For a few shillings, therefore, the sanitary condition of a lodging-house may be materially improved; a strong exciting cause of zymotic disease would be effectually removed from them.

I have latterly observed that the cellars in some of the houses in Herbert-street are used as dwelling apartments. This is an offence against the Health of Towns Act; I have therefore directed Sergeant Hibbs's attention to it.

In some of the houses in Tyndal-street the underground kitchens are appropriated to a similar purpose. This is highly objectionable, as no ventilation can be obtained.

I would also call your attention to the circumstance that the houses on the Tunnel and the houses near the Weighing-machine continue without water-closet accommodation. The adoption of the Bye-laws recently submitted to you, will enable you to remedy this serious evil.

I have now detailed at some length various circumstances bearing on the sanitary condition of the town of Cardiff; and while in the latter portion I have alluded to social evils which still require amendment, and pointed out the constant supervision necessary to prevent the recurrence of others, it must be a matter of considerable satisfaction to your Board to know that since you have been in existence as a body, you have so executed the powers vested in you as to change the position of Cardiff from being one of those unhealthy towns which contribute considerably to raise the rate of mortality of the kingdom, to be among those which have assisted in reducing it, and this in the face of natural difficulties which offered no mean obstruction to the success of your labours.

I have the honour to be,

GENTLEMEN,

Your obedient Servant,

H. J. PAINE,

OFFICER OF HEALTH.